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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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Annette Steudel

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02/05/2009

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EXAMINER

CHOI, LING SIU

ART UNIT

PAPER NUMBER

1796

MAIL DATE

DELIVERY MODE

02/05/2009

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/506,985	Applicant(s) STEUDEL ET AL.	
	Examiner Ling-Siu Choi	Art Unit 1796	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 27 October 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-38 is/are pending in the application.
- 4a) Of the above claim(s) 16-25 and 27-38 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-5, 7 and 8 is/are rejected.
- 7) ☒ Claim(s) 6, 9-15 and 26 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 08 September 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. This office action is in response to the Amendment "A" filed 10/27/2008. Claims 1-38 are now pending and claims 1-15 and 26 have been elected without traverse due to the Restriction/Election requirement.

2. In view of the Amendment, the claim rejections under 35 U.S.C. 102(b) as being anticipated by Jochum et al. (US 5,100,929) are withdrawn.

Claim Rejections - 35 USC § 112

3. **The following is a quotation of the second paragraph of 35 U.S.C. 112:**

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claims 10 and 13 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The "A" recited in claim 10 causes indefiniteness because the "A" recited in claim 10 is not further limited from claim 9 on which claim 10 depends.

The "B" recited in claim 13 causes indefiniteness because the "B" recited in claim 13 is not further limited from claim 12 on which claim 13 depends.

Claim Analysis

5. Summary of Claim 1:

A composition comprising a mixture of	
	at least one monomer with the formula: $A-(X)_n$ (1)
	at least one monomer with the formula: $B-(Y)_m$ (2)
where monomers of formula (1) are polymerisable with monomers of formula (2)	
n & m	integers greater than or equal to 2 such that n and m may be the same or different
X	a group containing a terminal <u>thiol-</u>
Y	a group containing a reactive <u>unsaturated carbon-carbon bond</u>
	each X may be the same or different, each Y may be the same or different
A & B	molecular fragments such that <u>at least one of A or B is an organic charge-transporting or organic light-emitting fragment</u>
<u>the composition further comprising at least one of an emissive dopant and a charge transporting dopant</u>	

Claim Rejections - 35 USC § 103

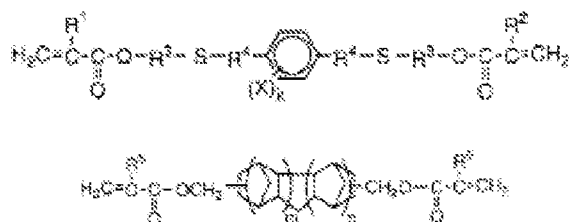
6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

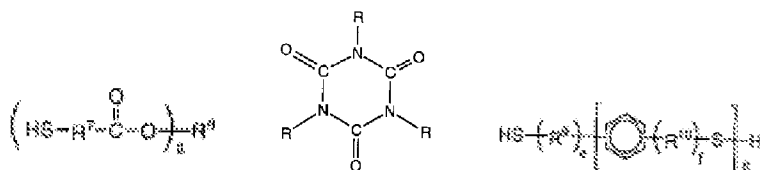
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7. Claims 1-5 and 7-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tanamura et al. (JP 10-144469) in view of Thompson et al. (US 6,210,814 B1).

Tanamura et al. disclose a composition for the organic electroluminescence device, comprising a monomer containing polyfunctional acrylate in the formula of



and a monomer containing polymercapto group in the formula of



wherein R = HS (claims 1-3; [0013], [0035]-[0040]). Tanamura et al. further disclose that the photopolymerization is carried out in the presence of an ultraviolet ray absorbent which reads on the initiator ([0045]).

The difference between the present claims and the disclosure of Tanamura et al. is the requirement of at least one of an emissive dopant and a charge transporting dopant in the composition.

Thompson et al. disclose that an emissive molecule as a dopant in the host material affects the wavelength of light emitted when the emissive dopant molecule luminesces, wherein the emissive dopant is a polarization molecule selected from the group consisting of N,N-dimethylparanitroaniline, certain polyphenyls, certain stilbenes,

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certain fluorenes, and certain diphenylacetylenes (abstract). In light of such benefit, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the emissive molecule as the dopant in the composition and thereby obtain the present claims.

Allowable Subject Matter

8. Claims 6, 9-15, and 26 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims because both Jochum et al. and Tanamura et al. do not teach or fairly suggest the claimed composition, wherein the composition, in particular, comprises the specific monomer(s).

Response to Arguments

9. Applicant's arguments filed 10/27/2008 have been fully considered but they are not persuasive.

“JP 10-144469 relates to organic electroluminescent devices. However, review of an English language translation of this document (obtained from the JPO website), demonstrates that the compositions disclosed therein are intended for use as the substrate of an organic electroluminescent device rather than the active layers of the device. Neither the monomer containing polyfunctional acrylate nor the monomer

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containing polymercapto are charge transporting or light emissive. Rather, they are actually transparent and insulative in order to form an insulative, transparent substrate as described in the document."

It is noted that the copolymer made by photopolymerization of the specific monomers is used as a substrate and these specific monomers have properties to donate or accept electron due to the existence of carboxyl or amine group. Thus, the limitations of the present claims 1-5 and 7-8 without being currently amended are met. Referring to the amended claims 1-5 and 7-8, the rejection under 35 U.S.C. 103(a) is presented as above.

Conclusion

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Jochum et al. (US 5,100,929).disclose a photopolymerizable dental composition which is curable with visible light and comprises (a) at least 10 wt% of one or more of the poly-thiol compounds, each having at least two thiol groups, (b) at least 10 wt% of one or more of the poly-ene compounds, each having at least two ethylenically unsaturated groups, (c) 0.01-5 wt% of at least one acyl phosphine compound as a photoinitiator, and (d) 0 to 79.99 wt% of an acrylic acid ester and/or methacrylic acid ester of an at least di-functional alcohol (claim 1). Attention is drawn to Example 1, wherein the photopolymerizable composition comprises 50 parts by weight pentaerythrite tetramercaptopropionate, 50 parts by weight triallyl triazine trione, and

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0.5 parts by weight 2,4,6-trimethylbenzoyl diphenyl phosphine oxide, wherein triallyl triazine trione reads on electron-transporting material. However, Jochum et al. do not teach or fairly suggest the claimed composition, wherein the composition comprises, in particular, at least one of an emissive dopant and a charge transporting dopant.

11. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ling-Siu Choi whose telephone number is 571-272-1098. The examiner can normally be reached on Monday to Friday.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Wu can be reached on 571-272-1114. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

/Ling-Siu Choi/

Primary Examiner, Art Unit 1796

January 25, 2009

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